

LISTING OF THE CLAIMS

Claims 1-3: (canceled).

4 (original): A low-noise transformer characterized in that the transformer core formed by laminating n pieces of electrical steel sheets has viscoelastic layers $30\text{ }\mu\text{m}$ or more in thickness placed at m gaps among the $n-1$ gaps of laminated layers, m satisfying the following formula:

$$3 \leq (n-1)/m \leq 30.$$

Claim 5: (canceled).

6 (new): A low-noise transformer formed by an electrical steel sheet having a viscoelastic layer $30\text{ }\mu\text{m}$ or more in thickness on at least one surface of the electrical steel sheet.

7 (new): A low-noise transformer according to claim 6, wherein said viscoelastic layer has a loss factor with one or more peaks at temperatures within a range from 20 to 200°C .

8 (new): A low-noise transformer comprising:

a core formed from an electromagnetic steel sheet; and
viscoelastic layers $30\text{ }\mu\text{m}$ or more in thickness inserted at random in the core.

9 (new): A low-noise transformer according to claim 8, wherein said viscoelastic layers have a loss factor with one or more peaks at temperatures within a range from 20 to 200°C .